

A method is disclosed where one or more biological stains are applied to living tissue displaying, or suspected of having cells, or parts of the tissue which are diseased, metaplastic, or otherwise abnormal, including but not limited to lesions which may be thought pre-cancerous or cancerous. The stained tissue is then analyzed, *in situ*, by reflectance spectroscopy, the results of which are then compared to a digital library of reflectance spectrums of such tissue that have been previously diagnosed by conventional histochemical techniques. The method is further disclosed as a means to monitor the progress of photodynamic therapy using the same biological stains as specific photosensitizers.

[illegible]